## Abstract of the Disclosure:

A method produces a thermoelectric layer structure on a substrate and the thermoelectric layer structure has at least one electrically anisotropically conductive V-VI layer, in particular a (Bi, Sb)<sub>2</sub> (Te, Se)<sub>3</sub> layer. The V-VI layer is 5 formed by use of a seed layer or by a structure formed in the substrate, and disposed relative to the substrate such that an angle between the direction of the highest conductivity of the V-VI layer and the substrate is greater than 0°. 10 orientation can also be effected by an electric field. Components are formed of the thermoelectric layer structure in which the angle between the direction of the highest conductivity of the V-VI layer and the substrate is greater than 0°. As a result, the known anisotropy of the V-VI 15 materials can advantageously be used for the construction of components.

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